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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,927	11/16/2000	Takashi Yamamoto	001527	3205

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EXAMINER

RODEE, CHRISTOPHER D

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 06/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MF-5

Office Action Summary

Application No.

09/712,927

Applicant(s)

YAMAMOTO ET AL.

Examiner

Christopher D RoDee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-14 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-14 and 16-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6, 8-14, and 16-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims remain indefinite because it is unclear in each independent claim what the "developing portion" refers to. The methods have been amended to state that the developer is transported by a developing portion to form a multicolor toner image and that the formula relates the aggregation initially and after 20 hours of no-load revolution of the portion, but it is unclear in the claims what the "developing portion" is. It is unclear if the developing portion is a developing roller 14 or a toner supplemental roller 15 as in Figure 2 or if this refers to some other component. It is also unclear what the toner is transported to in forming the image. Applicants' remarks in the recent response are noted but the claims do not describe a device or other feature that would have a developing portion. Clarification is requested.

Claim Rejections - 35 USC §§ 102 & 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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Claims 1-6, 8-14, and 16 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Moriki *et al.* in US Patent 6,077,636.

This rejection was presented in the last Office action. Applicants have amended independent claims 1 and 9 to include the limitations of previously rejected claims 7 and 15, respectively. Applicants traverse the rejection take the position that Moriki is directed to processes that use toner particles with certain circularities and particle size distributions. Additionally, the reference requires certain inorganic fine particles (A) and (B). Particle (B) is chosen to prevent particle (A) from being buried in the toner particles' surfaces. The instant invention uses external additives to achieve the recited level of aggregation and charge change ratios recited. Applicants do not believe that these claimed characteristics are necessarily inherent in the methods of Moriki, and particularly do not meet the requirements of claims 2 and 10 because the external additive particle sizes overlap at only 30 nm.

The Examiner has carefully considered applicants' remarks. "To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." In re Robertson, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

The Examiner agrees that Moriki does not specify the aggregation characteristics or the charging characteristics of the toner and has relied upon the inherent characteristics of the toner in the process. The instant specification states that the claimed aggregation and charge change characteristics are obtained by addition of external additives where the addotoves have a preferred size of 5 to 2000 nm and a BET specific surface area of 20 to 500 m²/g (spec. pp. 22-23). Inorganic additives are particularly preferred. The specification states on page 30 that

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toners having too small an amount of the external additive produce a charge change ratio outside the scope of the invention (see Table 1, Toners B and C) while toners having the requisite amount of the external additive produce charge ratio within the scope of the claims (Toners D-G). The size and amount of the external additive is taught as critical to obtain the aggregation and charge characteristics claimed.

A typical non-magnetic, mono-component cyan developer is formed in Example 1. This composition has 1.5 parts of silica additives with specific surface areas of 110 m²/g and 50 m²/g. Examples 3-5, 7, 9, and 10 also produce cyan toners that are pertinent to the instant invention. Table 2 summarizes the properties of the cyan toner as well as the yellow, magenta, and black non-magnetic, one-component developers, each of which having external additives of between 1.5 and 4.5 parts by weight. Example 12 (col. 53-55) uses the developers in the manner discussed above where superposed images are formed. In the examples the size of the additive (A) is 1 to 30 nm (col. 10, l. 33-37) while additive (B) has a size of 30 to 600 nm, as taught by the reference.

Because the reference discloses a toner composition having the requisite amount, size, and BET surface area for external additive of the instant claims and specification there is sufficient reason to believe that the toner of Moriki inherently has the aggregation and charging characteristics of the toner of the instant claims. Additionally, because the additives have specific surface areas within the scope of the specification teachings it appears that they would inherently have the requisite size of particles.

The express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. 102 or 103. "The inherent teaching of a prior art reference, a question of fact, arises both in the context of anticipation and obviousness." *In re Napier*, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995). The claiming of a new use, new function or

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unknown property which is inherently present in the prior art does not necessarily make the claim patentable. *In re Best*, 195 USPQ 430, 433 (CCPA 1977).

With respect to claims 2 and 10, the specific disclosure of the endpoint at 30 nm is sufficient to place the external additive size within the artisan's possession.

The Examiner has provided sufficient reason to believe that the reference's methods contain toners having the requisite characteristics. The rejection is proper and the burden has been properly shifted to applicants to prove otherwise.

Claims 17 and 18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ugai *et al.* in US Patent 5,698,354.

Newly submitted claims 17 and 18 require further consideration and the following new grounds of rejection.

Ugai discloses an image forming process using a magenta toner, a cyan toner, a yellow toner, and a black toner to form a full color image (col. 58, l. 9 – 48). In the process an apparatus as shown in Figure 1 is used. For each color an electrostatic latent image is formed on a photosensitive drum as shown in Figure 5. This image is developed in a contact imaging process using the developing device of Figure 9 having a roller 144 that transports each colored toner. Successive images are formed using each color toner and the formed toner images are superposed on each other to form a multicolor toner image on a receiver. The color toners contain an external additive such as 2.0 wt. % of hydrophobic silica having a diameter of 15 nm. It appears that the other color toners (magenta, yellow, and black) have the same external additive and composition as the cyan toner except for the colorant used (see col. 43, l. 32-56). The reference states that the BET specific surface area for the inorganic particles of the

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reference is 100 to 300 m²/g (col. 20, l. 35-38). These values all fall within the scope of the values disclosed in the specification as useful for the external additives.

The reference does not specify the aggregation characteristics or the charging characteristics of the toner, but because the reference discloses a toner composition having the requisite BET surface area external additive of the instant claims and specification there is sufficient reason to believe that the toner of Ugai inherently has the aggregation and charging characteristics of the toner of the instant claims. See *In re Fitzgerald*, 205 USPQ 594. "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). The Examiner has provided sufficient basis for the artisan to believe that the reference inherently has the characteristics required in the claims. Absolute certainty that the characteristics is not required as long as the Examiner has provided sufficient reasons to believe the characteristics are present. The Examiner has made the requisite showing and has properly shifted the burden of proof to applicants.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D RoDee whose telephone number is 703 308-2465. The examiner can normally be reached on most weekdays from 6 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 703 308-2464. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9310 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

cdr
June 24, 2002


CHRISTOPHER RODEE
PRIMARY EXAMINER